

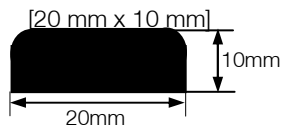
MASTERFLEX® 610

Hydroswelling waterbars for joints

DESCRIPTION

Masterflex 610 is a hydroswelling waterbar, ready for installation in joints to render the joints leakproof. It is based on a blend of acrylate polymers and a unique hydroswelling polymer that acts by swelling on exposure to water, to form a seal.

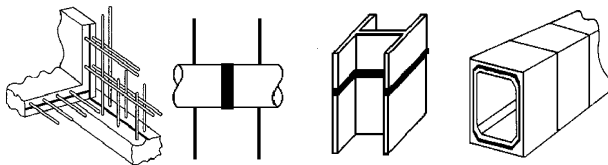
Masterflex 610 is available in below-mentioned sizes

Size	Cross section
20 mm x 5 mm	
20 mm x 10 mm	
20mm x 20 mm	

RECOMMENDED FOR

Masterflex 610 is recommended for all construction joints exposed to hydrostatic pressure. Application areas include joints between :

- the abutments of concrete and rock, masonry, etc.
- the rafts and walls in tunnels and basements.
- steel and concrete pipes, H-king, precast elements, etc.



FEATURES AND BENEFITS

- **Swells in contact with water by up to 170%** - prevents water ingress even when the joint width varies
- **Water molecules held by molecular attraction** – captured water does not get transported through capillaries
- **Controlled swelling** – minimise the risk of damage to concrete
- **Does not form foam or gas with water** – durable seal. No air bubbles to breakdown and allow leaks.
- **Reversible swelling process**
- **Outstanding chemical resistance**

PERFORMANCE DATA

Swelling rate (%) JIS K 6258	220
Specific gravity JIS K 6350	1.21
Hardness (HS) JIS K 6253 (A)	47
Tensile strength (N/mm) JIS K 6251	6.12
Elongation (%) JIS K 6251	610

Swelling : The degrees of swelling of **Masterflex 610** when exposed to different solutions are illustrated in the chart below.

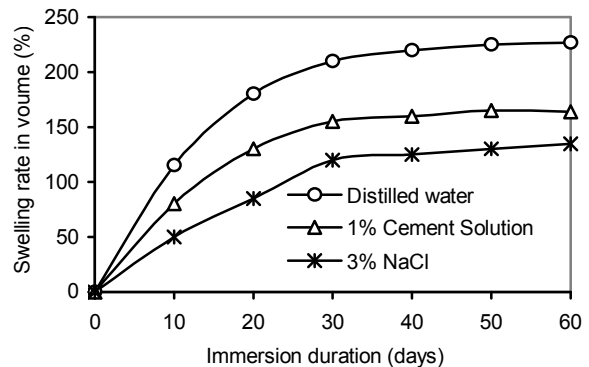
The swelling action is designed to exert adequate pressure to profile the waterbar exactly onto the joint faces, to provide a tight seal even against high hydrostatic pressures.

Note :

- The swelling action does not change the homogeneous structure of the polymer matrix.
- The swelling is confined to the part exposed to water, since the waterbar is designed not to transport the captured water through its matrix.

Typical swelling of **Masterflex 610** :

Type : Type 3
Size : 20 mm x 10 mm x 20 mm
Temperature : 25°C



ESTIMATING DATA

Type 3	Size	Minimum coverage
	20 mm x 5 mm	Min. 10 cm
	20 mm x 10 mm	Min. 10 cm
	20 mm x 20 mm	Min. 20 cm

Note : Delay coating liquid is helpful when it is difficult to keep the minimum coverage.

After installation, protect **Masterflex 610** and the joint area from dirt, sand, stones, rain, water and other liquids.

APPLICATION

Surface Preparation

Correct preparation is critical for optimum performance. Joint surfaces should be structurally sound, clean, and free from loose particles and sharp protrusions, oil, grease, or any other contaminant.

Repair any honeycombs, uneven surfaces and such other defects with a suitable BASF Construction Chemicals repair mortar. Clear any standing water on the surface.

MASTERFLEX[®] 610

Application

- Masterflex swelling waterstops are fully bonded to the prepared base using **Masterflex 610** assembly adhesive.
- Mechanical fastening at 20cm intervals can be employed as an alternative.
- **Masterflex 611** expanding joint paste may be used for bonding of gaskets on very uneven or rough surfaces.
- The entire length of the swelling gasket must be bonded flat onto the base to prevent any leakage at a later stage.
- The concrete cover should be at least 8cm thick. The swelling gasket should be placed at the centre of walls which are up to 30cm thick and on the water-facing side of the wall if the wall is more than 30cm thick, taking into account the aforementioned minimum concrete covering.
- Joints between two Masterflex swelling waterstops should be butt jointed.

Priming

Prime the surface along a strip where **Masterflex 610** will be installed and to a width slightly larger than the waterbar using **Masterflex 610** Adhesive to provide adhesion to the waterbar.

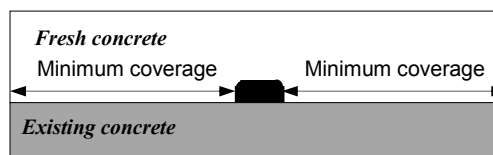
On uneven surfaces, use Sonolastic NP1, Masterflex 611 or Concesive 2525 to level out the unevenness and provide adhesion to the waterbar.

Masterflex 611 the gun grade hydroswelling sealant can be effective to provide the double safety of swelling with **Masterflex 610** to watertightness on moist and also uneven surfaces.

Masterflex 610 can also be fixed to the even substrate by fastening mechanically using nails at regular intervals of 25 cm.

Installation

Lay the waterbar preferably along the middle of the slab. On wide joint surfaces (greater than 100 cm), two parallel waterbars may be laid for added safety. It is important to leave the minimum coverage from both the edges of concrete to provide sufficient concrete cover to absorb the swelling stresses.



PACKAGING

Masterflex 610 packed in a carton is available.

20 mm x 5 mm : 10 m per roll x 10 rolls

20 mm x 10 mm : 15 m per roll x 4 rolls

20 mm x 20 mm : 8 m per roll x 4 rolls

STORAGE

Masterflex 610 gaskets should be stored away from moisture.

PRECAUTIONS

Health : **Masterflex 610** is not toxic and does not normally cause any health hazard while handling. It is safe for use after taking standard precautions followed in the construction industry, such as the use of hand gloves, etc.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

SMflex610/3/0110

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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